

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A ceramic gas tight high-pressure burner comprising:

an ionizable filling,

a discharge vessel having a discharge cavity with a volume from 3 mm³ to 30 mm³, whereby the internal filling pressure of the discharge cavity is ≥ 0.1 MPa, at room temperature,

at least one end closure device at at least one end of the discharge vessel, the at least one end closure device having a feed-through opening and forming a crevice ~~between the at least one end closure device and the discharge vessel~~, and

at least one feed-through passing through the feed-through opening, ~~wherein the feed-through opening has a cross-section that varies along a longitudinal direction~~, wherein the crevice is between the at least one feed-through and the discharge vessel, and

wherein the crevice is tubular-shaped and has a volume of $\geq 0 \text{ mm}^3$
and $\leq 1.7 \text{ mm}^3$, and wherein the crevice has an open end facing the
discharge vessel.

Claim 2 (Canceled)

3. (Previously Presented) The ceramic gas tight high-pressure burner according to claims 1, further comprising at least one connection means for gas tight connecting the feed-through to the discharge vessel.

4. (Previously Presented) The ceramic gas tight high-pressure burner according to claim 3, wherein said connection means is selected from a group comprising a sealant and a welding seam.

Claim 5 (Canceled)

6. (Currently Amended) The ceramic gas tight high-pressure burner according to claim 1, wherein an outer cross-section of the feed-through opening is equal or greater than an inner cross-

section of the feed-through opening, and wherein the feed-through opening has a shape of at least one of a cylinder, a cone, an ellipsoid, a parabola, a hyperbola, a hemisphere, and a T-shape.

7. (Previously Presented) The ceramic gas tight high-pressure burner according to claim 1, wherein the at least one end closure device comprises a cermet material having a gradient.

8. (Previously Presented) The ceramic gas tight high-pressure burner according to claim 1, wherein at least one end part of the discharge vessel is at least partly coated with a layer that improves connecting means bonding strength, whereby the layer is at least partly located between an end part of the discharge vessel and the at least one end closure device.

Claim 9 (Canceled)

10. (Currently Amended) A method of manufacturing a ceramic gas tight high-pressure burner (1) comprising:

a) at least one end closure device,

b) at least two feed-through members, and

c) at least one discharge vessel with at least one end

opening, whereby the manufacturing method comprises the acts of:

i) filling said discharge vessel with an ionizable filling through at least one opening, and

ii) closing said at least one end opening by arranging a feed-through in said opening followed by gas tight connecting said feed-through to the end closure device and/or to the discharge vessel, ~~whereby a gas tight high-pressure burner is obtained, wherein said at least one end opening has a cross-section that varies along a longitudinal direction, wherein a crevice is formed between the feed-through and the at least one discharge vessel, wherein the crevice is tubular-shaped and has a volume of $\geq 0 \text{ mm}^3$ and $\leq 1.7 \text{ mm}^3$, and wherein the crevice has an open end facing the discharge vessel.~~

11. (Previously Presented) The method of claim 10, wherein an outer cross-section of said at least one end opening is equal or greater than an inner cross-section of said at least one end opening.

12. (Currently Amended) A high-pressure burner comprising:
a discharge vessel including an ionizable filling;
an end closure device located at an end of the discharge vessel, the end closure device having a feed-through opening; and
a feed-through passing through the feed-through opening,
~~wherein the feed-through opening has a cross-section that varies along a longitudinal direction of the discharge vessel~~
wherein a crevice is formed between the feed-through and the discharge vessel, wherein the crevice is tubular-shaped and has a volume of $\geq 0 \text{ mm}^3$ and $\leq 1.7 \text{ mm}^3$, and wherein the crevice has an open end facing the discharge vessel.

13. (Currently Amended) The ceramic gas tight high-pressure burner of claim 1, wherein the at least one end closure device is configured to fit in the discharge vessel.

14. (Currently Amended) The high-pressure burner of claim 12, wherein the end closure device is configured to fit on the discharge vessel.

15. (Currently Amended) The high-pressure burner of claim 12, further comprising an end part configured to fit into the discharge vessel, wherein the end closure device is configured to fit on the end part.